

WHAT IS CLAIMED IS:

1. A motor control system for an endodontic handpiece comprising:

means for measuring selected operating parameters related to the fatigue factor in a dental file used in a handpiece during preparation of a root canal;

recording the resulting measurements over time in a computer as the data history of the file;

a file storage box for storing a plurality of individual files, the location of said files in said storage box being correlated in said computer with said individual file data histories;

means for displaying the data history of a given file; and

means for permitting selection of a given file according to its displayed data history.

2. The motor control system of claim 1 wherein the measuring means is capable of recording the total number of revolutions a given individual file has turned since its first use.

3. The motor control system of claim 1 wherein the measuring means includes means for measuring the torsional stresses incurred in an individual file during the rotation thereof and means for developing a record thereof.

4. The motor control system of claim 1 wherein the measuring means includes means for tracking direction of rotation

of the dental file for the period of use of the file in a given procedure.

5. The motor control system of claim 1 wherein the measuring means includes means for measuring the speed of rotation of said dental file on an incremental basis during the period of use in a given procedure.

6. The motor control system of claim 1 wherein the file selection permitting means includes means for ejecting a selected file from the file storage box where it is stored.

7. The motor control system of claim 1 wherein said file storage box is autoclavable so that the files stored therein may be sterilized for subsequent use.

8. The motor control system of claim 6 wherein the means for permitting selection of a given file includes means for identifying a group of stored files having file data histories which correspond closely to specified parameters to permit
5 selection of a given file from said group.

9. The method of controlling a drive motor for an endodontic handpiece comprising the steps of:

measuring selected operating parameters related to the fatigue factor in a dental file used in a handpiece during
5 preparation of a root canal;

recording the resulting measurements over time in a computer as the data history of the file;

storing individuals files in a file storage box wherein the location of said files is correlated in said computer with said individual file data histories;

displaying the data histories of the given files; and

permitting a given file to be selected in accordance with the displayed file data history.

10. The method of claim 9 wherein the recording step includes the step of recording the total number of revolutions a given individual file has turned since its first use.

11. The method of claim 9 wherein the measuring step includes measuring the torsional stresses incurred in an individual file during rotation thereof.

12. The method of claim 11 wherein the measuring step further includes the step of developing a record of accumulated stress.

13. The method of claim 9 wherein the measuring step includes the step of tracking the direction of rotation of a dental file for the period of use of the file in a given procedure.

14. The method of claim 9 wherein the measuring step further includes the step of measuring speed of rotation of said dental file on an incremental basis during the period of use in a given procedure.

15. The method of claim 9 wherein the step of selecting a given file further includes the step of ejecting the selected file from its stored position in the file storage box.

16. The method of claim 9 further comprising the step of storing said files in an autoclavable storage box.

17. The method of claim 15 wherein the selecting step comprises the step of identifying a group of stored files having file data histories which correspond closely to specified parameters to permit selection of a chosen file from said group.